

III. Remarks

Claims 1-3, 9, and 18 are presently pending. Claims 4-8 and 10-17 have been previously cancelled or withdrawn from consideration, without prejudice or disclaimer.

Applicants have amended Claims 1, 9, and 18. The amendments are not limiting and are simply stating what is disclosed in the specification implicitly. No estoppel should result from the amendments. The amendments are not narrowing.

A. Response to 1st ¶ Rejection

Claims 1-3, 9, and 18 stand rejected under 35 USC §112, 1st ¶. Applicants respectfully request reconsideration in light of this response.

To begin, the 1997 article to Guerry (hereinafter referred to as the Guerry article), two proteins are mentioned, the 92kD flagellar hook and the 58-62kD flagellin. The Examiner concludes that two of the three antigens recited in the Claims read on protein antigens of *Campylobacter* that are flagella antigens. However, and by definition, the Guerry article cannot possibly disclose Applicants' invention. The presence of a 58-62kD flagellin protein would render the claims not essentially free of anti-flagellar antibodies. Applicants' invention, by definition cannot comprise flagellin, not antibodies against the flagellin. Accordingly, the Guerry article does not disclose antigens of Applicants' invention. Accordingly, Applicants respectfully request reconsideration.

Likewise, the hook protein of the Guerry article is the protein to which the flagellum is attached. It is not a flagellar antigen as the Examiner suggests. Immunogenically, it has nothing to do with the flagellum, in regards to the Examiner's contention.

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Flagellin, the building stone of the flagella and not the flagellar hook protein is the immunodominant antigen recognized during infection as is stated on the first page of the Guerry article. Accordingly, Applicants respectfully request reconsideration of the rejection.

B. Response to 2nd ¶ Rejection

Claims -3, 9, and 18 stand rejected under 35 USC §112, 2nd ¶. Applicants respectfully request reconsideration in light of this response.

To begin, the recitation of limitations is not New Matter. Applicants' disclosure specifically discloses, in the paragraph bridging pages six and seven, that the presence of wild type *Campylobacter* strains suppresses the induction of antibodies against the 97kD, 60kD and 13kD proteins. Thus, it is clear from Applicants' disclosure that essentially all of the anti-flagellar antibodies are free from the vaccine. Applicants respectfully request reconsideration of the rejection in light of this response.

Applicants have amended the claims with the phrase "the vaccine essentially free of anti-flagellar antibodies." The Examiner's contention appears to be that Applicants must disclaim the presence of even one anti-flagellar antibody. However, such an amendment is not necessary and not intended by Applicants. The claim term essentially free is a claim term well understood in the art field and specifically sanctioned by the Federal Circuit. Claims are not rendered indefinite by the use of relative terms so long as one of ordinary skill in the art would understand what is claimed when the claim is read in light of the specification. *Seattle Box. Co. v. Industrial Crating & Packing, Inc.*, 731 F.2d at 826; *Rosemount, Inc. v. Beckman Instruments, Inc.*, 727 F.2d 1540, 1547 (Fed.

Cir. 1984) ("close proximity"); *In re Marosi*, 710 F.2d 799, 802 (Fed. Cir. 1983) ("essentially free of"). The term "essentially free of" certain material is definite when general guidelines and examples are provided that are sufficient to enable person of ordinary skill in art to draw line between unavoidable impurities and essential ingredients. *See Marosi*, 710 F.2d at 802. Here, essentially free of is defined by the specification..

Taking into account the Cawthraw prior art article, the argument contained herein and Applicants' specification, "essentially free of" would be interpreted to mean that the character of the vaccine is that it is free of anti-flagellar antibodies. This does not mean that there are no anti-flagellar antibodies, just that the composition is defined by chicken antiserum raised against a flagellaless *Campylobacter* strain. This is not indefinite language and would be understood by one of ordinary skill in the art.

C. §102 Rejections

a. over Cawthraw

Claims 1-3 stand rejected under 35 USC §102(b) as being anticipated by an article by Cawthraw et al. in a journal titled Avian Diseases, April-June, 1994, Vol. 38(2) pp. 341-349 (hereinafter referred to as the Cathraw article). It is the position of the Examiner that the Cathraw article discloses anti-*C. jejuni* IgG antibodies induced to a strain of *Campylobacter jejuni*, wherein the antibodies were administered to eggs and ultimately to young chickens. The Examiner's position is that the Cawthraw article discloses Applicants' invention. However, as Applicants have stated, Cawthraw discloses a flageller vaccine and is distinguished from Applicants' claimed invention.

The Cathraw article is directed towards vaccines of a flagellar *Campylobacter* strain. In fact, the Cathraw article repeatedly states that a flagellar is important to the ability of the *Campylobacter* to act as a vaccine (See p. 347, 2nd ¶, Col. 2; p. 347, 1st ¶, Col. 1; Abstract, last sentence). Accordingly, the Cathraw article does not disclose Applicants' invention. Applicants' invention illustrates that antiserum raised against a *flagellaless* strain of *Campylobacter* is effective as a vaccine. (See Specification, Results, Experiment 1, p. 11, ll. 26-37). Accordingly, the specification teaches that a flagellar strain of *Campylobacter* does not function as a vaccine, as was commonly thought in the artfield. Therefore, Applicants respectfully request reconsideration.

The Examiner, in a previous paper, has directed attention towards page 344 of the article to support the contention that the article discloses passively immunizing young chicks when the antiserum containing antibodies was passively administered to young chicks. The Examiner then directs attention to page 347, first column, last paragraph, the statement "there is evidence of anti-*C. jejuni* IgG antibodies in 1-week-old infected birds, which indicates the presence of maternal antibodies acquired during egg development" (See Cawthraw article, page 347) for support of the contention that the Cawthraw article discloses a vaccine. However, this is anti-*C. jejuni* IgG antibodies to the flagellate strain and not the aflagellate. Therefore, the Examiner's contention is incorrect. Moreover, the remainder of the Cawthraw article discloses the importance of flagellin as an immunogen. (See last paragraph, p. 347). In fact, the Cawthraw article concludes that the presence of circulating maternal antibodies does not confer protection. (See p. 348, left column, 1st ¶). Therefore, the article states that passive immunization was not a vaccine. Applicants respectfully request reconsideration.

Applicants have amended the claims and differentiated the Cawthraw article in response to the §112, 2nd ¶ rejection. In accordance with economy of filing, Applicants will not repeat all the argument above. Suffice it to say, Applicants' invention is differentiated and patentably distinct. Accordingly, Applicants respectfully request reconsideration.

b. over Tsubokura in light of Logan

Claims 1-3, 9, and 18 stand rejected under 35 USC §102(b) as being anticipated. Applicants respectfully request reconsideration in light of the arguments and amendments herein.

The Tsubokura article discloses a flagellar vaccine. A flagellar vaccine is not Applicants' invention. Accordingly, the article does not disclose Applicants' invention. Applicants respectfully request reconsideration in light of this response and amendments.

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IV. Conclusion

The application is believed in a condition for allowance and applicants respectfully request such action. Applicants' undersigned attorney respectfully requests an interview with the Examiner and the Examiner's SPE prior to action on the case. Please charge deposit account number 02-2334 for any required fees and to credit any credits.

Sincerely,

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